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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,028	07/25/2001	Hassan K. Sreenath	096429-9108	7045

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EXAMINER

PRATS, FRANCISCO CHANDLER

ART UNIT PAPER NUMBER

1651

DATE MAILED: 01/17/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/915,028

Applicant(s)

SREENATH, HASSAN K.

Examiner

Francisco C Prats

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 6-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1651

DETAILED ACTION

Claims 1-13 are pending.

Election/Restrictions

Applicant's election without traverse of the group I invention, claims 1-5, in Paper No. Paper No. 7, filed November 20, 2002 (certificate of mailing November 14, 2002) is acknowledged.

Claims 6-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. As discussed immediately above, election was made **without** traverse in Paper No. 7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 1651

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lacoste-Bourgeacq et al (U.S. Pat. 6,042,853) in view of Etchells et al (U.S. Pat. 3,410,755).

Lacoste-Bourgeacq discloses the digestion of sausage casings, including spent sausage casings, using cellulase enzyme, whereby a solution containing monosaccharides including glucose is produced. See column 3, lines 4-12. Lacoste-Bourgeacq differs from claims 1-5 in that Lacoste-Bourgeacq does not disclose the fermentation of the glucose-containing sausage casing hydrolysate to lactic acid. However, the fermentation of glucose to lactic acid by the claimed microorganisms is an extremely well-known process. Etchells discloses that the claimed microorganisms were known at the time of applicant's invention to produce lactic acid from glucose. See, e.g., column 1, lines 52-59, as well Table I at column 4.

Thus, the artisan of ordinary skill, recognizing the glucose-containing cellulase-hydrolyzed sausage casing solution of Lacoste-Bourgeacq to be a suitable carbon source for the lactic acid producing microorganisms of Etchells, clearly would have been motivated to have used the glucose-containing cellulase-hydrolyzed sausage casing solution of Lacoste-Bourgeacq as a carbon source for the lactic acid producing microorganisms of Etchells. Additional motivation would have

Art Unit: 1651

been derived from the fact that rather than simply discarding the cellulase-hydrolyzed solution of Lacoste-Bourgeacq as discussed at column 3, lines 9-11, the artisan of ordinary skill would have reasonably expected that the glucose-containing solution would have been useful as a carbon source for lactic acid producing bacteria, with minimal processing. A holding of obviousness is therefore required.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lacoste-Bourgeacq et al (U.S. Pat. 6,042,853) in view of Etchells et al (U.S. Pat. 3,410,755), as applied to claims 1-4 above, and further in view of Chahal (U.S. Pat. 5,047,332), Madamwar et al (J. Ferment. Bioengineer. 67(6):424-426 (1989)), and Ono (U.S. Pat. 3,232,832).

As discussed above, when viewed in light of Etchells, Lacoste-Bourgeacq suggests the process recited in claims 1-4. Claims 4 and 5 contain embodiments requiring the cellulase enzyme to be produced by solid state fermentation (SSF) of certain microorganisms, such a process is not disclosed or suggested by Etchells and Lacoste-Bourgeacq, viewed by themselves. However, each of Chahal (*T. reesei*, column 10, line 40 through column 11, line 35) and Madamwar (*A. niger*, see whole document) discloses that it is advantageous to produce cellulase

Art Unit: 1651

to be used in digestion of waste cellulosic materials, so as to produce glucose for use in subsequent fermentations. Thus, applicant's claimed use of SSF for producing cellulase to be used in digestion of waste cellulosic sausage casings must be considered obvious. Lastly, although Ono does not directly disclose the use of SSF to produce cellulase from *R. oryzae*, Ono makes it clear that *R. oryzae* was well known at the time of applicant's invention to produce cellulase. In view of the advantageousness of using SSF to produce cellulase from known cellulase-producing organisms, disclosed by Chahal and Madamwar, the artisan of ordinary skill would have been motivated to have used the methods of Chahal and Madamwar to produce cellulase from *R. oryzae*. A holding of obviousness is therefore required.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francisco C Prats whose telephone number is 703-308-3665. The examiner can normally be reached on Monday through Friday, with alternate Fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G Wityshyn can

Application/Control Number: 09/915,028

Art Unit: 1651

be reached on 703-308-4743. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.


Francisco C Prats
Primary Examiner
Art Unit 1651

FCP
January 15, 2003